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FOREST PEST MANAGEMENT

CATALOG OF SPECIMENS
LOCATED IN THE HERBARIUM
LAKEWOOD SERVICE CENTER
ROCKY MOUNTAIN REGION
USDA FOREST SERVICE

by

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United States
Department of
Agriculture

Forest Service

Forest Pest Management
Denver, Colorado

CATALOG OF SPECIMENS LOCATED IN THE HERBARIUM LAKEWOOD SERVICE CENTER ROCKY MOUNTAIN REGION USDA FOREST SERVICE

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Renewable Resources
Rocky Mountain Region
USDA Forest Service
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EXPERIMENT STATION

INTRODUCTION

An inventory and classification of the specimens located in the USDA Forest Service, Forest Health Management herbarium, Lakewood Service Center, Building 20, Denver Federal Center, was completed by the author during October 1994. This reference collection consists of more than 230 fungal and dried plant materials in Riker mounts, small paper packets, and small plastic bags in a herbarium cabinet on over 40 host plant species. The materials consist primarily of forest disease collections; however, some food crop pathogens are also present. Some of the materials date back to 1965. Additions to the collection have been made through the years and new additions are made each year. A card file listing the scientific and common name of the organism, host, date and location of collection, and collector's name is maintained. Each specimen is given a unique number in the collection.

This is the first report documenting all specimens housed in the herbarium and is intended primarily as a reference source for staff use.

This catalog consists of two parts: Part I, beginning on page 2, is an alphabetical listing by scientific names of the organisms, the host or substrate, and file number of the collection. For some collections no host is listed. Part II, beginning on page 12, lists alphabetically the scientific name of the host with a list of the organisms under each host, thereby one can see a listing of all specimens by host species.

The scientific names of the forest disease organisms are those listed in the 1985 publication by F. G. Hawksworth, R. L Gibertson, and G. W. Wallis entitled "Common names for tree diseases in the western United States and western Canada," supplement to the Proceedings of the 32nd Annual Western International Forest Disease Work Conference, Taos, NM, September 25-28, 1984. 37 p.

As additional materials are added to the collection, periodic updates of this report will be issued.

PART I. LISTING BY SCIENTIFIC NAMES OF ORGANISMS

Species (Damaging agent)	**Host** (Substrate)	**File Number**
Air pollution damage	Pinus ponderosa	102
Amanita muscaria		77-49
Arceuthobium americanum	Pinus contorta	5
Arceuthobium americanum	Pinus contorta	6
Arceuthobium americanum	Pinus contorta	97
Arceuthobium americanum	Pinus contorta	104
Arceuthobium americanum	Pinus contorta	173
Arceuthobium americanum	Pinus contorta	193
Arceuthobium cyanocarpum	Pinus flexilis	1
Arceuthobium cyanocarpum	Pinus flexilis	106
Arceuthobium divaricatum	Pinus edulis	96
Arceuthobium divaricatum	Pinus edulis	105
Arceuthobium douglasii	Pseudotsuga menziesii	45
Arceuthobium douglasii	Pseudotsuga menziesii	95
Arceuthobium douglasii	Pseudotsuga menziesii	107
Arceuthobium pusillum	Picea glauca	51
Arceuthobium vaginatum	Pinus ponderosa	36
Arceuthobium vaginatum	Pinus ponderosa (increment cores)	98
Arceuthobium vaginatum	Pinus ponderosa	194
Armillaria sp.	Pinus edulis	3
Armillaria sp.	Abies concolor	108
Bacterium pseudotsugae	Pseudotsuga menziesii	103
Bifusella linearis		153

Bifusella linearis	Pinus flexilis	3132
Bifusella saccata		152
Ceratocystis fagacearum	Quercus marilandica	30
Ceratocystis ulmi	Ulmus americana	16
Ceratocystis ulmi	Ulmus americana	111
Ceratocystis wageneri (Verticicladiella wageneri)	Pinus edulis	4
Ceratocystis wageneri (Verticicladiella wageneri)	Pinus edulis	73
Chrysomyxa arctostaphyli	Picea engelmannii	192
Ciborinia whetzeli	Populus tremuloides	75
Ciborinia whetzeli	Populus tremuloides	112
Ciborinia whetzeli (C. bifrons)	Populus tremuloides	179
Coleosporium jonesii	Pinus edulis	2
Cortinarius sp.		77-32
Cortinarius sp.		77-37
Cortinarius sp.		77-41
Cortinarius sp.		77-43
Cortinarius sp.		77-46
Cortinarius sp.		77-48
Cortinarius sp.		77-63
Cortinarius sp.		77-64
Cortinarius sp.		77-65
Cortinarius sp.		77-66
Cortinarius sp.		77-68
Cortinarius sp.		77-69
Cortinarius sp.		77-78

Cortinarius sp.		77-80
Cortinarius sp.		77-81
Cortinarius sp.		77-82
Cortinarius sp.		77-92
Cortinarius sp.		77-95
Cortinarius sp.		77-97
Cortinarius sp.		77-98
Cortinarius sp.		77-99
Cortinarius sp.		77-103
Cortinarius sp.		77-104
Cortinarius sp.		77-105
Cronartium coleosporioides (Peridermium stalactiforme)	Castilleja sp.	81
Cronartium comandrae	Comandra sp.	77
Cronartium comandrae	Comandra umbellata	80
Cronartium comandrae	aeciospores	89,90,91
Cronartium comandrae	Comandra umbellata	93
Cronartium comandrae	Pinus contorta	94
Cronartium ribicola	Pinus flexilis	47
Cronartium ribicola	Ribes inerme	48
Cronartium ribicola	aeciospores	82,83,84
Cronartium ribicola	aeciospores	85,86
Cronartium ribicola	aeciospores	87,88
Cronartium ribicola	Pinus flexilis	129
Cryptosphaeria populina	Populus tremuloides	110
Cryptosphaeria populina	Populus tremuloides	195
Davisomycella medusae		148
Davisomycella medusae	Pinus ponderosa	200

Davisomycella montana		146
Davisomycella ponderosae		145
Davisomycella ponderosae		147
Davisomycella ponderosae	Pinus ponderosa	3040
Diplodia tumefaciens	Populus angustifolia	99
Dothistroma pini		154
Elytroderma deformans		144
Entoloma sp.		77-94
Erysiphe graminis	Triticum aestivum	23
Erysiphe polygoni	Trifolium pratense	134
Fomes sp.	conifer log	39
Fomes sp.	conifer log	40
Fomes sp.	conifer log	41
Frost damage	Abies lasiocarpa	100
Gymnosporangium clavipes	Amelanchier sp.	117
Gymnosporangium kernianum	Juniperus scopulorum	18
Gymnosporangium nelsonii	Juniperus scopulorum	17
Gymnosporangium nelsonii	Juniperus scopulorum/ Amelanchier sp.	181
Gymnosporangium sp.	Crataegus sp.	27
Gymnosporangium sp.	Juniperus communis	35
Gymnosporangium sp.	Juniperus sp.	37
Gymnosporangium sp.	Juniperus virginiana/ Crataegus sp.	116
Hebeloma sp.		77-83
Hebeloma sp.		77-96
Hebeloma sp.		77-108
Hemiphacidium planum	Pinus ponderosa	3074

Herbicide injury	Ulmus pumila	29
Herbicide injury	Zea mays	137
Heterobasidion annosum (Fomes annosus)	Abies concolor	113
Heterobasidion annosum (Fomes annosus)	unknown	114
Hygrophorus chrysodon		77-88
Hygrophorus chrysodon		77-93
Hygrophorus conicus		77-76
Hygrophorus pudorinus		77-89
Hygrophorus sp.		77-35
Hygrophorus sp.		77-40
Hygrophorus sp.		77-50
Hygrophorus sp.		77-79
Hypoderma succatum	Pinus flexilis	3133
Hypodermella arcuata	Pinus flexilis	3261
Hypodermella cerina	Pinus ponderosa	3422
Hypodermella concolor	Pinus contorta	3306
Hypodermella laricis		143
Hypodermella medusa	Pinus contorta	3196
Hypodermella medusa	Pinus ponderosa	3230
Hypodermella montivaga	Pinus contorta	3262
Irpex cinnamomeus	Picea sp.	121
Laccaria sp.		77-44
Lactarius deliciosus		77-91
Lactarius sp.		77-47
Lactarius sp.		77-72
Lactarius sp.		77-106

Leptomelanconium cinereum	Pinus ponderosa	201
Leptostroma decipiens		155
Leptostroma decipiens	Pinus ponderosa	202
Lirula abietis-concoloris	Abies sp.	140
Lirula abietis-concoloris		142
Lirula macropora	Abies sp.	141
Lophodermella arcuata		160
Lophodermella cerina		157
Lophodermella cerina	Pinus elliotii	158
Lophodermella concolor	Pinus contorta	163
Lophodermella concolor	Pinus contorta	164
Lophodermella concolor	Pinus contorta	180
Lophodermella concolor	Pinus contorta	4478
Lophodermella montivaga	Pinus contorta	159
Lophodermella montivaga	Pinus contorta	182
Lophodermella montivaga	Pinus contorta	3620
Lophodermella morbida		162
Lophodermium australe		169
Lophodermium australe		170
Lophodermium canberrianum		171
Lophodermium concolor	Pinus contorta	119
Lophodermium concolor	Pinus contorta	120
Lophodermium decorum		172
Lophodermium decorum	Abies concolor	203
Lophodermium decorum	Abies concolor	3071
Lophodermium nitens	Pinus flexilis	167
Lophodermium pinastri	Pinus contorta	165

Lophodermium pinastri	Pinus sylvestris	204
Lophodermium ponderosae	Pinus ponderosa	3198
Lophodermium seditiosum		166
Lophomerum autumnale		161
Marssonina populi	Populus tremuloides	9
Marssonina populi	Populus tremuloides	76
Marssonina populi	Populus tremuloides	177
Melampsora epitea	Salix sp.	183
Melampsora epitea	Salix sp.	184
Melampsora epitea	Salix sp.	185
Melampsora epitea	Salix sp.	186
Melampsora epitea	Salix sp.	187
Melampsora medusae	Populus tremuloides	122
Melampsora medusae	Populus tremuloides	123
Melampsora medusae	Populus tremuloides	188
Melampsora occidentalis	Populus angustifolia	178
Melampsora occidentalis	Populus angustifolia	189
Melampsora sp.	Populus deltoides var. wislizenii	190
Melampsora sp.	Populus deltoides var. occidentalis	191
Melampsorella caryophyllacearum	Abies lasiocarpa	46
Melampsorella caryophallacearum	Abies lasiocarpa	124
Neopeckia coulteri	Pinus contorta	74
Peridermium bethelii	Pinus contorta	92
Peridermium bethelii	Pinus contorta	125
Peridermium filamentosum	Pinus ponderosa	34

Peridermium harknesii	Pinus contorta	78
Peridermium harknessii	Pinus contorta	126
Peridermium harknessii	Pinus contorta	174
Phaeocryptopus gaeumannii		139
Phellinus pini (Fomes pini)	Picea engelmannii	115
Phellinus texanus	Juniperus sp.	176
Pholiota sp.		77-85
Phoma trifoli	Medicago sativa	132
Phoradendron juniperinum	Juniperus sp.	72
Pseudopeziza jonesii	Medicago sativa	133
Puccinia glumarum	Triticum aestivum	21
Puccinia graminis	Triticum aestivum	20
Puccinia peridermiospora	Fraxinus pennsylvanica	26
Puccinia recondita	Clematis lingustifolia	14
Puccinia rubigo-vera	Triticum aestivum	24
Puccinia sp.	Rhamus sp.	28
Pucciniastrum sp.	Pyrola sp.	38
Pucciniastrum sp.	Abies concolor	127
Rhabdocline weirii		149
Rhabdocline weirii	Pseudotsuga menziesii	150
Rhizoctonia sp.	Beta vulgaris	130
Rhizoctonia sp.	Phaseolus vulgaris	136
Rhizopogon roseolus		77-70
Rhizosphaera kalkhoffii		151
Russula sp.		77-36
Russula sp.		77-38

Russula sp.		77-39
Russula sp.		77-42
Russula sp.		77-61
Russula sp.		77-74
Russula sp.		77-75
Russula sp.		77-84
Russula sp.		77-87
Russula sp.		77-100
Russula sp.		77-101
Scirrhia acicola	Pinus sylvestris	32
Scirrhia pini (Dothistroma pini)	Pinus sylvestris	676
Suillus sp.		77-33
Suillus sp.		77-107
Suillus sp.		77-109
Suillus tomentosus		77-34
Suillus tomentosus		77-67
Taphrina caerulescens	Quercus marilandica	31
Tilletia controversa	Triticum aestivum	22
Tricholoma sp.		77-62
Tricholoma sp.		77-77
Tricholoma sp.		77-102
Tricholoma vaccinum		77-90
Tricholoma vaccinum		77-110
Unknown	Juglans nigra	205
Ustilago bullata	Bromus tectorum	19
Valsa sordida (Cytospora chrysosperma)	Salix sp.	15

Verticillium sp.	Solanum tuberosum	131
Virgella robusta		142
Verticillium sp.	Solanum tuberosum	131
Zinc deficiency	Phaseolus vulgaris	135

PART II. LISTING BY SCIENTIFIC NAMES OF HOSTS

Species (Host or Substrate)	Organism
Abies concolor	Armillaria sp. Heterobasidion annosum Lophodermium decorum Pucciniastrum sp.
Abies lasiocarpa	Frost damage Melampsorella caryophyllacearum
Abies sp.	Lirula abietis-concoloris Lirula macropora
Amelanchier sp.	Gymnosporangium clavipes Gymnosporangium nelsonii
Beta vulgaris	Rhizoctonia sp.
Bromus tectorum	Ustilago bullata
Castilleja sp.	Cronartium coleosporioides
Clematis lingustifolia	Puccinia recondita
Comandra sp.	Cronartium comandrae
Comandra umbellata	Cronartium comandrae
Crataegus sp.	Gymnosporangium sp.
Fraxinus pennsylvanica	Puccinia peridermiospora
Juglans nigra	Unknown
Juniperus communis	Gymnosporangium sp.
Juniperus scopulorum	Gymnosporangium kernianum Gymnosporangium nelsonii
Juniperus sp.	Gymnosporangium sp. Phellinus texanus Phoradendron juniperium
Juniperus virginiana	Gymnsporangium sp.
Medicago sativa	Phoma trifoli Pseudopeziza jonesii

Phaseolus vulgaris	Zinc deficiency
Picea engelmannii	Chrysomyxa arctostaphyli Phellinus pini
Picea glauca	Arceuthobium pusillum
Picea sp.	Irpex cinnamomeus
Pinus contorta	Arceuthobium americanum Cronartium comandrae Hypodermella concolor Hypodermella medusae Hypodermella montivaga Lophodermella concolor Lophodermella montivaga Lophodermium concolor Lophodermium pinastri Neopeckia coulteri Peridermium bethelii Peridermium harknessii
Pinus edulis	Arceuthobium divaricatum Armillaria sp. Ceratocystis wageneri Coleosporium jonesii
Pinus elliotii	Lophodermella cerina
Pinus flexilis	Arceuthobium cyanocarpum Bifusella linearis Cronartium ribicola Hypoderma succatum Hypodermella arcuata Lophodermium nitens
Pinus ponderosa	Air pollution damage Arceuthobium vaginatum Davisomycella medusae Davisomycella ponderosae Hemiphacidium planum Hypodermella cerina Hypodermella medusae Leptomelanconium cinereum Leptostroma decipens Lophodermium ponderosae Peridermium filamentosum
Pinus sylvestris	Lophodermium pinastri Scirrhia acicola Scirrhia pini

Pseudotsuga menziesii	Arceuthobium douglasii Bacterium pseudotsugae Rhabdocline weirii
Populus angustifolia	Diplodia tumefaciens Melampsora occidentalis
Populus deltoides var. occidentalis	Melampsora sp.
Populus deltoides var. wislizenii	Melampsora sp.
Populus tremuloides	Ciborinia whetzeli Cryptosphaeria populina Marssonina populi Melampsora medusae
Pyrola sp.	Pucciniastrum sp.
Quercus marilandica	Ceratocystis fagacearum Taphrina caerulescens
Rhamus sp.	Puccinia sp.
Ribes inerme	Cronartium ribicola
Salix sp.	Melampsora epitea Valsa sordida
Solanum tuberosum	Verticillium sp.
Trifolium pratense	Erysiphe polygoni
Triticum aestivum	Erysiphe graminis Puccinia glumarum Puccinia graminis Puccinia rubio-vera Tilletia controversa
Ulmus americana	Ceratocystis ulmi
Ulmus pumila	Herbicide injury
Unknown	Heterobasidion annosum
Zea mays	Herbicide injury